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(54) **Cooling for turbine shroud segments**

(57) A segmented turbine cooling component (130), such as shroud segment (130) for the high pressure and low pressure turbine sections of a gas turbine engine, useful in providing preferential cooling to the side rails or panels (214) of the turbine component (130) through the combination of cooling air fed into the intermediate pressure cavity (424) between the discourager and primary seals (404, 412) and then through recesses (282) in the bottom wall (256) of the lower discourager seal slot (242) that impinges air on the portion (448) of the side panel (214) below the discourager seal (404). The side panels (214) of the turbine component (130) have an upper primary seal slot (246) and a lower discourager seal slot (242) with a bottom wall (258) having a plurality of alternating lands (278) and recesses (282) along the length thereof and a plurality of cooling air passages

(286) having outlets (292) exiting into the lower slot (242) above the lands (278). The subassembly (400) can be formed from a plurality of such turbine components (130) where the spacing of the lands (278) and recesses (282) of the lower discourager slots (242) of the adjacent side panels (214) are staggered such that the lands (278) of the lower slot (242) of one adjacent panel (214) are opposite the recesses (282) of the lower slot (242) of the other adjacent side panel (214). This subassembly (400) also has primary and discourager seals (412, 404) received by the respective upper and lower slots (246, 242) that are positioned in the gap (402) between the adjacent panels (214) which define the intermediate pressure cavity (424) therebetween and the trench (420) below the discourager seal (404) that is purged by spent cooling air (446) from the recesses (282) in the lower slot (242).

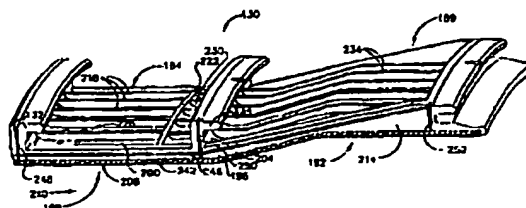


FIG. 2

2 1 162 346 A3

EP 1 162 346 A3

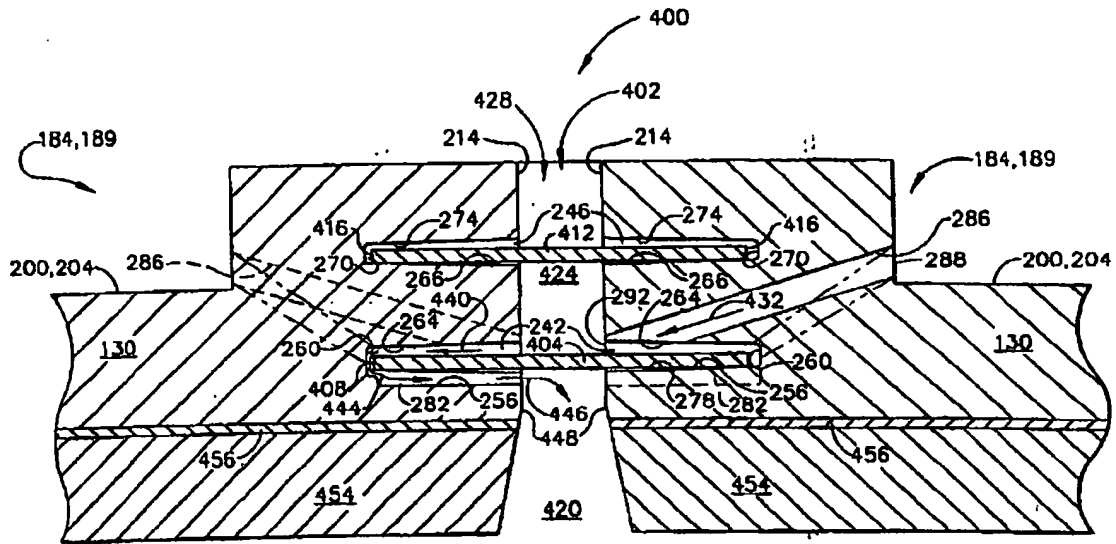


FIG. 10

EP 1 162 346 A3

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EUROPEAN SEARCH REPORT

Application Number
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The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 18 November 2003	Examiner Raspo, F
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EPO FORM 1533 (3.12.94)

EP 1 162 346 A3

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